TD225 S383 O4/1952

OFFICIAL STATEMENT

ON

I. LEXINGTON DAM
II. CROSS-VALLEY CANALS

●

BY

BOARD OF DIRECTORS

of

SANTA CLARA VALLEY

ER CONSERVATION DISTRICT

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WATER CONSERVATION DISTRICT

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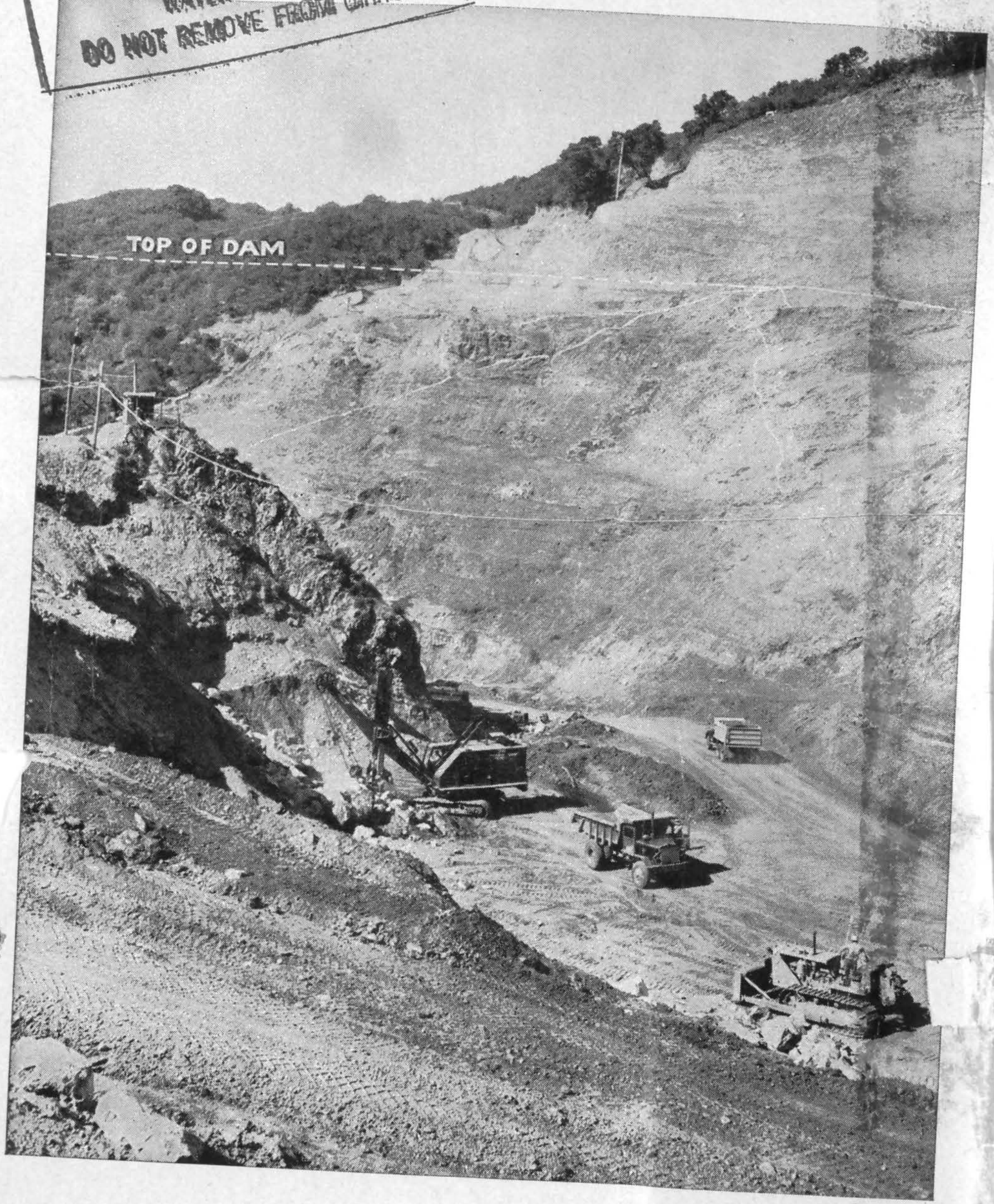


This picture shows the site of the Lexington Dam in the Los Gatos Canyon. Here over 1,500,000 cubic yards of earth will be hauled in, spread in 4-inch layers, sprinkled, rolled and tamped so that it will be more tightly packed than the native hills.

OFFICIAL STATEMENT
on
I. LEXINGTON DAM
II. CROSS-VALLEY CANALS
by
BOARD OF DIRECTORS
of
SANTA CLARA VALLEY WATER CONSERVATION DISTRICT

TO THE VOTERS OF THE DISTRICT:

Water is the Number 1 problem of Santa Clara Valley.

Our tremendous increase in population, our unprecedented influx of industries, require an ever-increasing amount of water. We live in a semi-arid region, with an average annual rainfall of only 14.39 inches. We have no snow-pack in our hills. We must therefore intercept our winter floods. We must capture these storm waters in the hours or days when they are rushing out of our mountain canyons, when these torrents go tearing along their river channels to waste in the Bay.

The first task is to intercept these floods by dams and reservoirs.

The second task is then to get the intercepted waters out of these reservoirs into the underground gravels, where they replenish our wells. Unless these reservoirs can be emptied more rapidly than at present, there will be less storage capacity to impound the succeeding winter's floods.

The system of irrigating from wells, which prevails in Santa Clara County, and the details of the two above purposes, will be more fully explained later in this leaflet.

The last major stream flowing unchecked through our District is the Los Gatos Creek. The Lexington Dam, now in process of construction about two miles upstream from the City of Los Gatos, will conserve this remaining supply.

The emptying of our larger reservoirs by increasing percolation into the underground gravel strata, will be greatly helped by cross-valley canals.

These two purposes, — first the completion of the Lexington Dam for water, and second, the better distribution from the reservoirs on Coyote River and the Los Gatos Creek,— are the objects of a bond election which has been called by the Board of Directors of the Water Conservation District to be held on Tuesday, September 16th.

On the ballot will be two propositions:

(1) for $850,000 for the Lexington project;

(2) for $600,000 for the cross-valley canals.

PROPOSITION I.

COMPLETION OF LEXINGTON DAM

Delay in Rerouting Santa Cruz Highway

The bonds for building the Lexington project were voted in 1947. Also that same year, the State Legislature appropriated $2,475,000 for rerouting the Los Gatos-Santa Cruz highway around the site of the Lexington Dam and reservoir. The District had expected that the highway work would have been completed in 1948, in which case the District would have built the Lexington Dam in 1949. Thus we would have been able to impound the flood waters of the Los Gatos Creek for the past three winters. An accompanying picture shows floods in the lowlands around Agnew in January, 1952, which would have been captured and used for our orchards if the Lexington Dam had been built on the time schedule originally planned by the District.

However, the rerouting of the State highway was not completed until December, 1951.

Until the highway was moved out of the site of the reservoir, the District could not begin its operations of blasting, moving earth, and rerouting the flume and pipelines of the San Jose Water Works and the lines of the telephone and power companies.

This picture shows flood waters in the Agnew area, mostly from the Los Gatos Creek, on January 12, 1952, which would have been caught and stored if the Lexington Dam had been built.

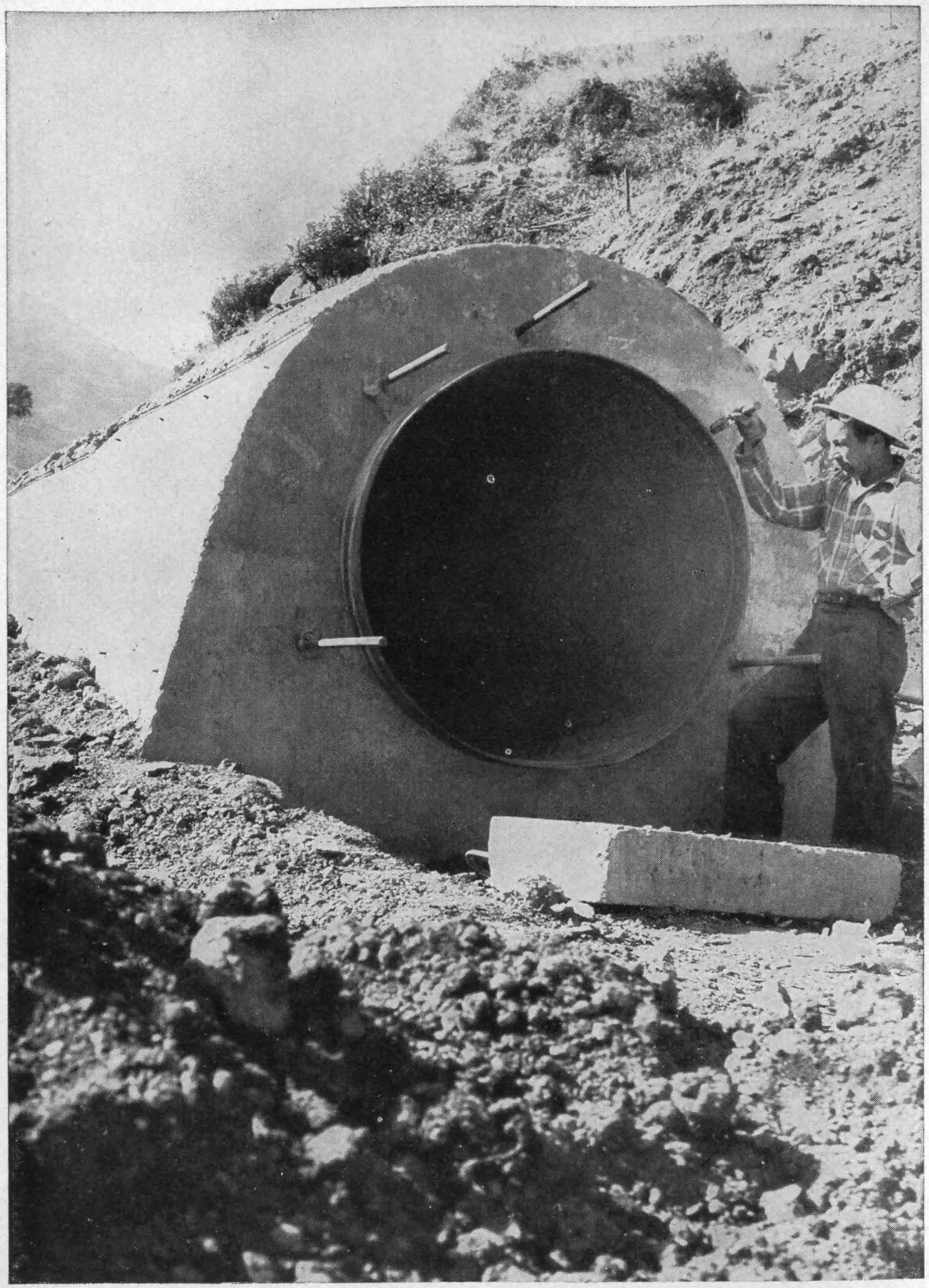
The building of the Lexington Dam requires the relocation of facilities of numerous utility corporations — water, telephone and power companies. The above shows a section of the 2½ foot steel pipe which the District has installed to replace the hillside flume of the San Jose Water Works.

Five Years of Mounting Costs

The District's Engineer, Mr. G. W. Hunt, based his estimate for the cost of the Lexington project on the expectation that the Dam would be built in 1949. However, that could not be done, and during the past three years construction costs have jumped beyond all possibility of expectation.

The general rise in costs is known to everyone, whether buying groceries or building homes. Recently the contractor who bid on the dividing strip down the center of The Alameda refused to proceed on his contract with the City of San Jose because two years' delay had skyrocketed construction costs since January 1950 some $14,000 beyond his original bid of $71,878.

A few of the major items in the Lexington project illustrate this rise in costs. For example, the main outlet valve for the Dam costs just twice as much as the same kind



This is the 50-inch steel outlet pipe encased in reinforced concrete 1½ feet thick. It lies on bedrock along the bottom of the canyon and is the means for the normal control of outflow from the Reservoir.

of valve cost for the Leroy Anderson Dam two years before. Other chief items in the construction of the dam reveal this same rise in prices:

ITEM	Anderson Dam 1949 cost	Lexington Dam 1952 cost	% increase
50-inch steel outlet pipe	$15,116.28	$22,853.13	50
Stripping off top soil	36c per cu. yd.	62c per cu. yd.	73
Placing earth in dam	32c per cu. yd.	57½c per cu. yd.	75
Reinforcing steel	7c per lb.	12c per lb.	74
Concrete, per cu. yd. in place	$40	$52	30

Trade journals which regularly publish contractors' costs showing the index for labor and materials, disclose that construction costs advanced about 30% between 1949 and 1952.

These increased costs cover not only the actual earth moving job for building the Lexington Dam, but include the cost of 3 miles of 30-inch pipe to replace the side-hill flume of the San Jose Water Works as well as all the underground pipe of the Water Works bringing in water from Soda Springs Canyon, Lake Canyon, Rundell Creek, Froment Creek, and other sources.

This same zooming cost applies to the cables, poles and other facilities required for relocating the lines of the Pacific Gas & Electric Company, the Pacific Telephone & Telegraph Company, and the Los Gatos Telephone Company.

District's Hands Tied

During all the past five years, the District was powerless to start work on the Lexington project. During the period it was compelled to mark time on the Lexington, the District financed, constructed and put into operation the mighty Leroy Anderson project. The bonds for this latter were voted by the people of the District in 1949, the Dam built in 1950, and water has been impounded in the reservoir for the past two winters. Although the Leroy Anderson project is much larger than the Lexington, the Engineer's estimates for the over-all cost of $3,000,000 for the Anderson project proved to be absolutely accurate. In the case of the Leroy Anderson Dam there was no compulsory five years delay.

Public Aware of Inflated Costs

We believe that the voters of the District fully realize the predicament which confronts them. We believe that they understand that there is no alternative but to authorize the funds to complete the Lexington Project. The dam has been started and must be finished. Nothing will be permitted to interfere with the protection of the lives of the people below the dam. The funds to pay the contractor have been earmarked and set aside for the sole purpose of making the installment payments on the dam as they fall due. However, buying reservoir lands and moving the facilities of the various utility companies have yet to be completed.

In fact, one of the elements of extra cost of the Lexington Dam is due to the utmost factor of safety. This comes from the stupendous amount of earth in the dam compared with its height. While the huge Leroy Anderson Dam has a 3 to 1 slope on its upstream face, the Lexington Dam will have a 5½ to 1 slope. This means that for every foot of height of the dam, the earth will extend 5½ feet upstream. The base of the dam will be nearly 1500 feet thick from the upstream toe or edge to the downstream toe. In other

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This is a view of the Leroy Anderson Reservoir 7½ miles long, the waters of which could be more aby percolated into the underground gravels if conveyed by cross-valley canal to Alamitos Percolating Pond.

words, there will be about a third of a mile of tightly packed earth for the base of the dam, and it will extend gradually upward on this 5½ to 1 slope. This is the greatest safety precaution in any earth dam in California. It necessarily, however, costs extra money.

Additional Cost for Bridges and Roads

The old road through the Los Gatos Canyon furnished access to the back country on both sides. From it roads took off both to the east and west. Now that the old road is to be flooded, the District in effect has to replace it with two roads. On the west a local road has to be built to connect into the new State Highway leading from Los Gatos to Santa Cruz, and on the east, an entirely new road has to be built extending from the upper, or south, end of the reservoir, past Soda Springs and Limekiln Canyons down to the dam. To connect the east side with the west side a large new concrete bridge (called the Alma bridge) with a span of 150 feet across the Los Gatos Creek, has been built across the upstream end of the reservoir.

This bridge was required by the Board of Supervisors to accommodate the residents of Aldercroft and the east side of the reservoir. Although ¼ of the cost of the bridge and the road is being paid by the County of Santa Clara, yet the remaining ¾ of the cost of the bridge and the access road to it down Moody Gulch from the State Highway constitute an additional cost not originally contemplated by the District.

Furthermore, it would be desirable, not only for the residents of Soda Springs and Limekiln Canyons and others on the east side of the reservoir, but also for the general public, to extend the road along the east side to Los Gatos. If participation from the County can be had and sufficient District funds are available, the Board of Directors would like to see this latter road built.

The building of two roads was not contemplated at the time of the 1947 bond issue. The Engineer planned to bring out traffic on to the highway by one route across the top of the Dam. The two routes now proposed necessarily involve extra expense.

Emergencies

On any construction project of the magnitude of the Lexington Dam, involving heavy excavation in a narrow canyon, with precipitous canyon walls on either side, there is always the possibility of slides. Such a slide actually occurred the night of Saturday, July 13th. It brought down an estimated 100,000 cubic yards of earth. This entails a large cost to remove the slide.

For this past slide and possible further emergencies, it is not only prudent, but necessary, to provide additional funds in the proposed bond issue.

Lands Yet to Be Bought

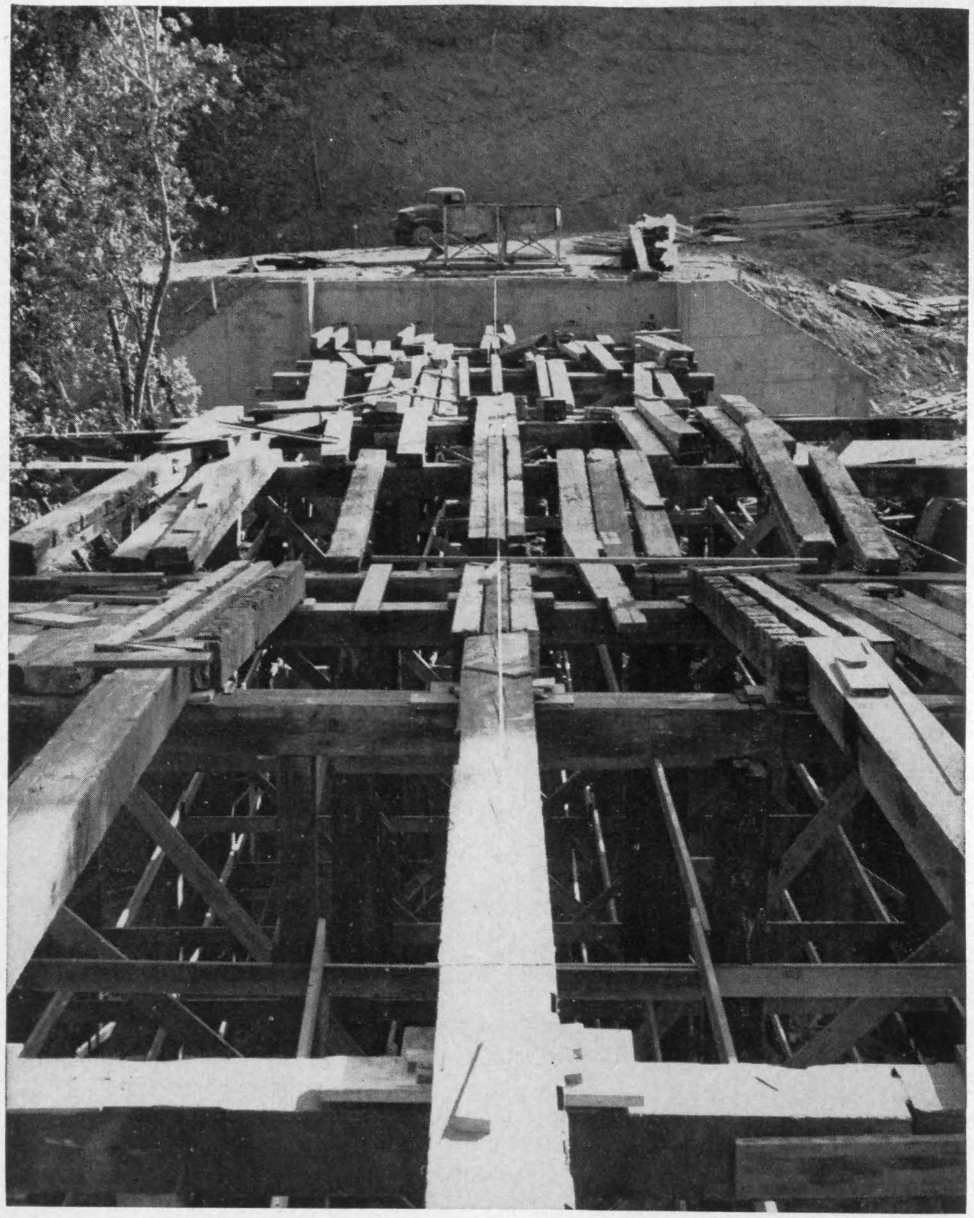
As above stated, funds have been set aside for the actual completion of the Dam. Ninety percent of the facilities of the San Jose Water Works have been replaced. The access roads are about 80% complete. However, only a small part of the lands in the reservoir site have been purchased. These lands can be acquired by condemnation, but the Board of Directors prefers to acquire lands as far as possible by purchase through negotiation and mutual agreement with the landowners.

This presents a critical situation. By voting the bonds on September 16th, and immediately selling them, the District will have on hand the funds to purchase the lands and buildings of some 100 property owners. If these lands are not acquired before they are inundated by the winter floods, the landowners will make claim for damages suffered before their lands are bought.

The District can avoid paying such damages by buying the lands before they are flooded. Judgments against the District for such damages would draw 7% interest. The bonds of the District, however, can be sold for about 2½% interest.

Obviously, it is wiser to pay our bills with 2½% money than 7% money.

The $850,000 in Proposition No. 1 is necessary to take care of the increase in costs during the last 5 years, and the extras and emergencies herein set forth.



A part of the Lexington Project is the Alma Bridge, at the upper or south end of the Reservoir. By means of this bridge, traffic can pass from one side to the other of the Los Gatos Creek. This photograph shows the forms and scaffolding for the bridge which is now under construction.

PROPOSITION II.

CROSS-VALLEY CANALS

Our system of irrigation in Santa Clara Valley as previously stated, is by pumping from wells. Underlying our Valley are vast interconnecting beds of gravel. The space in these gravels constitutes a huge underground reservoir. From this underground reservoir our 4000 wells draw their water.

In the past, we have been "mining" this water faster than it has been replenished. As the pumping level goes down, the cost of lifting water goes up. Finally the pumping cost becomes prohibitive, or there is no water.

To prevent our wells going dry, the people of Santa Clara Valley Water Conservation District some seventeen years ago erected 5 dams, with a capacity of storing 44,000 acre feet of water. These dams were the Coyote, Calero, Almaden, Guadalupe and Stevens. In 1949 the Leroy Anderson reservoir was created, which added 75,000 acre feet, making a total of 119,000 acre feet. This year, another 25,000 acre feet will be added by completion of the Lexington, making a grand total storage capacity of 144,000 acre feet.

The Problem of Distribution

The obvious problem is to get these stored waters into the underground gravels as rapidly as possible. Unless this be done — unless the reservoirs be practically emptied — before the floods of the succeeding winters, these floods rush into reservoirs already full, over the spillways, and into the Bay — a complete waste.

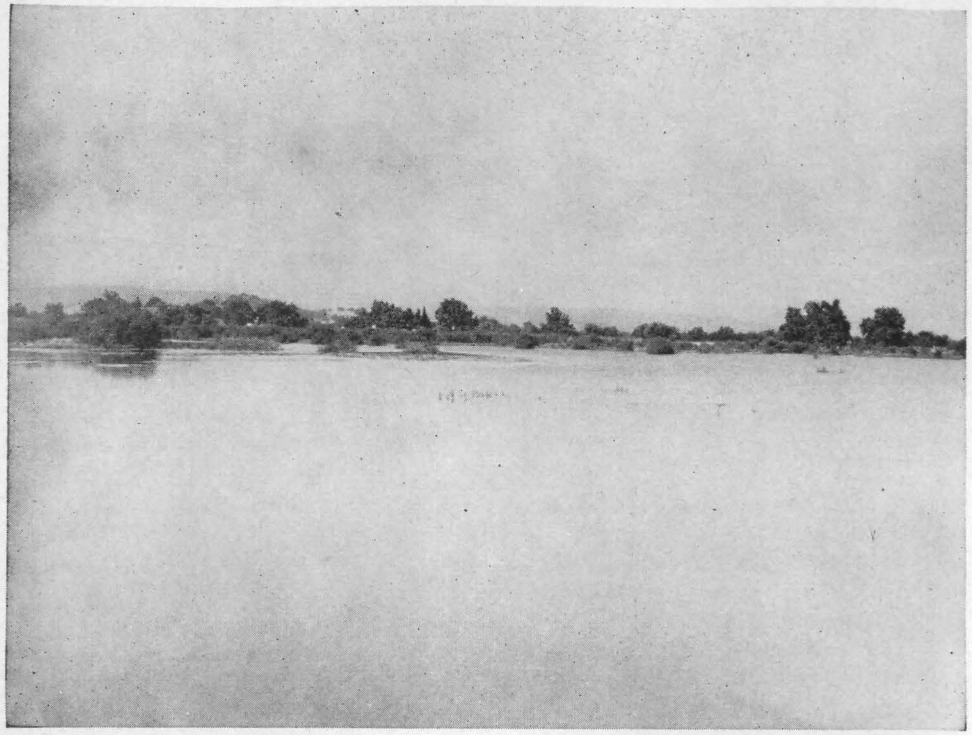
The present facilities for getting the released waters underground are by means of broad gravel washes in the stream beds capable of absorbing considerable quantities of water and feeding it into the underground strata. These large absorptive gravel washes are called "percolating ponds." The largest of these percolating ponds are the Coyote percolating pond just below the Metcalf Road bridge, a short distance north of Coyote Village, and the Alamitos percolating pond at the junction of the Almaden and Guadalupe creeks.

Limited Capacity of Coyote Percolating Pond

A new problem now confronts us since the completion of the Leroy Anderson Dam, with its added capacity of 75,000 acre feet in addition to the 25,000 acre feet of the Coyote reservoir just three miles upstream. The new Anderson Reservoir is 7½ miles long — as long as from San Jose to Sunnyvale. This problem is how to get the contents of these two large reservoirs percolated into the underground gravels and have the reservoirs empty for catching the following winter's floods. The Coyote percolating pond unfortunately can impregnate underground in one season only about 25,000 acre feet of water, or ¼ the capacity of the two reservoirs feeding water into this pond.

Transport Water to New Percolating Beds

Fortunately, the Alamitos percolating ponds are available to absorb much of the extra supply from the two reservoirs on the Coyote River. These Alamitos beds are



The above picture shows a portion of the Alamitos Percolating Ponds, to which some of the water from the Leroy Anderson Reservoir could be brought across the Valley by one of the proposed new canals, for steady percolation into the far-reaching underground gravels of the central section of the Valley.

now used only for percolating the limited storage of the Calero, Almaden and Guadalupe reservoirs. The Coyote water can be carried along the edge of the hills to the Alamitos percolating ponds by gravity flow. Pumping costs are thereby avoided in transporting Coyote water from the east side of the Valley to these absorptive gravels in the central part of the Valley.

Lexington Water to Saratoga Creek

A second canal to carry water from a place of abundance to a place of shortage is one proposed to carry Lexington water to gravel beds in Saratoga Creek on the western side of the Valley. This area for percolating is located near Cox Avenue above Prospect Road.

This second canal will be more expensive than the first, as it runs through more settled areas and will have to be conveyed by buried pipe. The cost for pipe is from five to ten times as much as for open canal.

Likewise, on this second canal, it is contemplated that a pumping plant will be required to get this Lexington-Los Gatos Creek water to the percolating ponds on the Saratoga Creek.

Urged by State Engineer

The State Division of Water Resources has recently made an elaborate report on the water problems of Santa Clara Valley. This investigation was made at the joint request of our County Supervisors and the City Council of San Jose, each of these public agencies paying 1/4, or $11,000, toward the cost of the study, and the State paying the remaining one-half. In this report, the Division of Water Resources urges as the first step which should be undertaken in dealing with our Valley's water problems, the construction of these cross-valley canals. Thus the water will be transported from the place of abundance to the place of dearth. Then the District's system of detention reservoirs will work in accordance with the plan intended — namely, to detain the floods, sink as much as possible underground, and have more capacity in the reservoirs to capture the succeding winter's floods.

Tax on Land Only

It should be borne in mind that the tax for Water Conservation bonds is based only on land — not on improvements. Thus, if the city dweller has a lot assessed for $600 and his house assessed for $3000, the Water District tax is computed only on the $600 land assessment. The same is true of an office building or industrial plant — the tax is not computed on the assessed valuation of the improvements.

On the assumption that the District's bonds can be sold at an interest rate of 2½%, the tax to pay principal and interest on these proposed bonds will be twelve and 1/4 cents (12¼) per $100 assessed value of land only, for the first year, gradually reducing as 1/25 of the bonds are paid off each year.

A pleasing feature for our tax payers is that during the past 5 years the outstanding indebtedness of the District has been steadily reduced. Also during this same 5 years the assessed valuation of lands (exclusive of improvements) within the District has gone up from $53,427,525 to $79,221,330. Thus the tax base for this new bond issue has been substantially broadened by reason of new subdivisions, new industries, and other community growth.

Favorable Time for Financing

The bonds of the District have been given a most favorable rating by investment houses. Whereas the rate of interest on most public bonds was 6% when the Water Conservation District was originally organized, the District has sold its recent issues for the Lexington and Leroy Anderson projects for about 2½%.

Commended by State and Government Officials

During the last seventeen years, since the erection of its first dams in 1935, the conservation works of this District have been viewed by many irrigation experts and by state and government officials. The Irrigation Districts Association of California has twice held its convention in San Jose. On each occasion the delegates have visited the works and studied the operations of the District. This has also been done by representatives of the State Chamber of Commerce and by industrial and financial groups. Likewise, the District's operations have been frequently visited by representatives of the State Division of Water Resources, and by such Federal agencies as the U. S. Reclamation Bureau and the Corps of Army Engineers.

Universally, these officials have commended the results obtained by the District for its tax dollars. The State Engineer has estimated that the cost for getting Italian Slough water over to the three counties of Alameda, Contra Costa and Santa Clara, will be at least $31,000,000, while the U. S. Bureau of Reclamation estimates that the cost to get such water for these three counties and San Benito County will be $71,000,000. It can readily be seen, therefore, how very cheap is the local water conserved by our District compared with the cost of the Italian Slough water. These observers have all remarked that the District has faced its problems, has solved them in the past, and is keeping abreast of the growing requirements for water due to phenomenal increase in population, industrial development, and conversion to row crops in agriculture.

The directors of the District believe that the voters can take a justifiable pride in the achievements of the District.

Approved by Farm and Civic Bodies

Our increasing demand for water has been studied by farm bodies such as the Farm Bureau, the Grange, the California Farmers, and our great co-operative growers associations. Likewise, it has been the subject of serious concern of the San Jose Chamber of Commerce, which, through a committee, has made an exhaustive study and has recommended the proposals herein outlined, for the cross-valley canals and the completion of the Lexington reservoir.

Labor leaders, service groups, civic bodies, not only in San Jose but in all parts of the District — Santa Clara, Sunnyvale, Mountain View, Campbell, and the unincorporated areas — have also given their approval.

The Lexington Reservoir will be over 3 miles long. In the spring, during the summer, and even into early fall, it should contain a large amount of water. It will be accessible for picnicking. Like the Leroy Anderson, the Coyote, the Calero and the Stevens Reservoirs, it should be popular for boating. The Fish & Game Commission plans to stock it with fish. It will become a much-frequented recreation area. For this reason the project has strong appeal to sportsmen's organizations.

There Is No Substitute for Water

Ours is a beautiful, a productive, a growing region. We are destined to take an ever-important place in the economy of California. As Mr. Leroy Anderson, foremost among the organizers of the Santa Clara Valley Water Conservation District, so often said and adopted for his motto: "There is no substitute for water."

What affects the pumper, the farmer, the industrial user, likewise affects the merchant, the professional man, the wage earner — in fact, every citizen.

To make the past investment by the taxpayers of the District operate most effectively, to get the maximum out of the District's projects, to distribute the Disrict's huge stored supplies of water to the places of need, the Directors of the District recommend your support of both Propositions I and II at the election on September 16, 1952.

September 5th, 1952.

DIRECTORS

Frank L. Steindorf, Div. 1
J. E. Weisendanger, Div. 2
C. G. Spargur, Div. 3

L. O. Wilcox, Div. 4
Harry G. Mitchell, Div. 5
Reginald L. Parry, Div. 6

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